

### **REMARKS/ARGUMENTS**

The Office Action of December 8, 2009, has been carefully reviewed and these remarks are responsive thereto. Claims have been amended, claims 1, 5, 18-19, 31, 40-41, 47, 52, and 57-59 have been previously canceled. Claim 74 has been added. No new matter has been introduced. Thus, upon entry of this amendment, claims 2-4, 6-17, 21-30, 32-39, 42-43, 45-46, 48-51, 53-56, and 60-74 remain pending in this Application. Reconsideration and allowance of the instant Application are respectfully requested.

#### **Rejections Under 35 U.S.C. § 112**

Claims 2-4, 6-17, 21-30, 32-39, 42, 43, 45, 46, 48-51, 53-56 and 60-73 stand rejected under 35 U.S.C. § 112, second paragraph, for indefiniteness. Claims 25, 34, 42, 48, 55, and 62 have been amended to be in a more preferred form. The amendment is believed to obviate these rejections.

#### **Rejections Under 35 U.S.C. § 103**

Claims 2-4, 6-17, 20-23, 25-31, 32-39, 42-46, 48-51, 53, 55-56, 60-67 and 68-73 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,151,584 to Papierniak et al. (hereinafter, "Papierniak"), in view of U.S. Pat. No. 6,317,722 to Jacobi et al. (hereinafter, "Jacobi"), in further view of U.S. Patent Publication No. 2002/0165736 to Tolle et al. (hereinafter, "Tolle").

Amended independent claim 62 recites, *inter alia*:

an inferencing engine configured to:

...

apply one or more rules to the ontology, wherein applying the one or more rules modifies the ontology to create a hierarchical collection of linked second nodes, the modifications including at least one of the following: adding a node to the hierarchical collection of linked first nodes and modifying a weight associated with the hierarchical collection of linked first nodes.

Neither Papierniak, Jacobi, nor Tolle, either alone or in combination, teach or suggest at least this feature of amended independent claim 62. Papierniak describes a method for "collecting subscriber specified information." Papierniak, Abstract. In one representative embodiment of

Papierniak, the method may be divided into seven processes: (1) “Data collection”; (2) “Data storage”; (3) Find and collect”; (4) “Structure and store”; (5) “Analysis and discovery”; (6) “Decision and action”; and (7) “Feedback”. Papierniak, Fig. 6. None of these processes teach or suggest “apply[ing] one or more rules to the ontology, wherein applying the one or more rules modifies the ontology to create a hierarchical collection of linked second nodes, the modifications including at least one of the following: adding a node to the hierarchical collection of linked first nodes and modifying a weight associated with the hierarchical collection of linked first nodes,” as recited by claim 62. For example, in the third process (Find and collect), Papierniak determines the data elements to be analyzed. Papierniak, col. 12, ll. 55-64. In the fourth process (Structure and store), Papierniak, parses, categorizes, indexes, and formats the collected data so that “knowledge can be easily used and derived.” Papierniak, col. 13, ll. 18-23. In the fifth process (Analysis and discovery), Papierniak “recognizes the patterns, trends, and exceptions of the data and/or the 25 information based on statistic and analytic manipulation techniques such as clustering, artificial intelligence, etc The goal is to provide the customers with recommended actions for their decision making.” Papierniak, col. 13, ll. 24-29. None of these processes contemplates applying one or more rules to modify an ontology, as recited in claim 62. Thus, Papierniak fails to teach or suggest all features of amended claim 62.

Jacobi describes a method where similar items lists are retrieved based on user data, the retrieved similar item lists are weighted, and the similar items lists are merged while the scores are added. *See, e.g.*, Jacobi, Fig. 5. Jacobi does not teach or suggest the feature recited by claim 62 of: “apply[ing] one or more rules to the ontology, wherein applying the one or more rules modifies the ontology to create a hierarchical collection of linked second nodes, the modifications including at least one of the following: adding a node to the hierarchical collection of linked first nodes and modifying a weight associated with the hierarchical collection of linked first nodes.” Indeed, Jacobi fails to contemplate applying rules to an ontology in any form and also fails to contemplate modifying an ontology to create a hierarchical collection of linked second nodes. Jacobi merely weights a list of items and merges the lists into a combined list. The addition of Tolle, while cited for other features, fails to cure the noted deficiencies of Papierniak and Jacobi with respect to claim 62. Hence, for at least these reasons, claim 62 distinguishes over the cited documents and is in condition for allowance.

Independent claims 25, 34, 42, 48, and 55, while different in scope, have been amended to recite features similar to those discussed above for claim 62. Therefore, independent claims 25, 34, 42, 48, and 55 are in condition for allowance for similar reasons given in support of claim 62.

Dependent claims 2-4, 6-17, 20-23, 26-33, 43-46, 49, 50, 53, 56, 60, 61, and 63-73 depend from one of independent claims 25, 34, 42, 48, 55 and 62, and are distinguishable for at least the same reasons as their respective base claim, and further in view of the various features recited therein.

Claims 24, 51 and 54 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Papierniak, in view of Jacobi, in view of Tolle, and further in view of Financialengines.com. Financialengines.com does not cure the aforementioned deficiencies of Papierniak, Jacobi and/or Tolle. Therefore, because claims 24, 51 and 54 depend from one of independent claims 25 48, and 55, discussed above, claims 24, 51 and 54 are distinguishable for at least the same reasons as their respective base claim, and further in view of the various features recited therein.

#### **New Claim 74**

New independent claim 74 has been added. Support for the new claim can be found throughout the originally filed specification, claims, and figures and at least at paragraphs [0140]-[0148], and Figure 16. Although this claim has not been rejected, the following remarks are in support of new claim 74.

Claim 74 recites, *inter alia*:

- mapping, by the computer, each weight of the user characteristic data to one or more nodes of an ontology, the mapping of each weight based on the concepts to generate an initialized ontology;

- applying one or more rules to the initialized ontology that modifies the initialized ontology, including at least one of the following modifications: adding a node to the initialized ontology and modifying a weight of the initialized ontology;

- determining that rule application is complete; and

- in response to completing rule application, storing the initialized ontology as a personalized interest graph.

None of the cited documents (Papierniak, Jacobi, Tolle, financialengines.com) either alone, or in any combination thereof, teach or suggest these features of independent claim 74. More specifically, none of the cited references teaches or suggests “applying one or more rules to the initialized ontology that modifies the initialized ontology, including at least one of the following modifications: adding a node to the initialized ontology and modifying a weight of the initialized ontology” in combination with the other features of claim 74.

### **CONCLUSION**

All issues having been addressed, Applicants respectfully submit that the instant Application is in condition for allowance, and respectfully solicit prompt notification of the same. However, if for any reason the Examiner believes the Application is not in condition for allowance or there are any questions, the Examiner is requested to contact the undersigned at (202) 824-3317.

Respectfully submitted,

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